产品承认书

PRODUCT SPECIFICATION FOR APPROVAL

客 户 名 称 CUSTOMER NAME	
客 户 料 号 P/N OF CUSTOMER	
承 认 字 号 APPROVAL NO.	
产 品 名 称 PRODUCT NAME	敏感型负温度系数热敏电阻 SN NTC THERMISTOR
规 格 型 号 TYPE SPECIFICATION	SNS103B23435FE1S110EABC20
承认书版本号 APPROVAL SHEET VERSION	1.0
承 认 日 期 DATE OF APPROVAL	

供 应 商 SUPPLIER		
制 定 DESIGNED	审 核 CHECKED	批 准 APPROVED
供应商品管部印鉴 SUPPLIER QA SEAL		

客 户 CUSTOMER		
检 验 INSPECTED	审 核 CHECKED	批 准 APPROVED
客户承认印鉴 CUSTOMER APPROVAL SEAL		

修 订 履 历

REVISION LIST			
版 本	修订时间	制 定	修 订 内 容
1.0	2022-01-19	李宝建 LI BAOJIAN	初始发行 INITIAL ISSUE

目 录

CONTENTS

1、 规格型号 PART IDENTIFICATION

SN	S	103	B_2	3435	F	E	I	S	110	E	ABC	20
①	②	③	④	④	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬

① 产品类别 PART NUMBER ENTIFICATION	SN指敏感型负温度系数热敏电阻; SN INDICATES SMD NTC THERMISTOR
② 系列类别 SERIES CATEGORY	S指传感器 S-FINGER SENSOR
③ 产品阻值（25°零功率电阻值） PRODUCT RESISTANCE (25° ZERO POWER RESISTANCE)	103指10KΩ 103 MEANS 10KΩ;
④ B 值代码 B-VALUE CODE	B2指 25/85; B2 MEANS 25/85
⑤ B 值数值 B-VALUE TOLERANCE	3435指B值为3435K 3435 MEANS THAT B VALUE IS 3435K
⑥ 阻值误差 PACKAGING STYLE	F指±1% F INDICATES ±1%
⑦ 头部外观结构 HEAD APPEARANCE STRUCTURE	E指环氧树脂包封; E MEANS EPOXY RESIN ENCAPSULATION;
⑧ 线材颜色 WIRE COLOR	1指线材颜色为黑色; 1 FINGER WIRE COLOR IS BLACK;
⑨ 线材规格 WIRE SPECIFIVATION	S指UL2651 HF#24并线; S MEANS UL2651 HF#24 PARALLEL;
⑩ 线材长度	110指产品总长度为110mm;

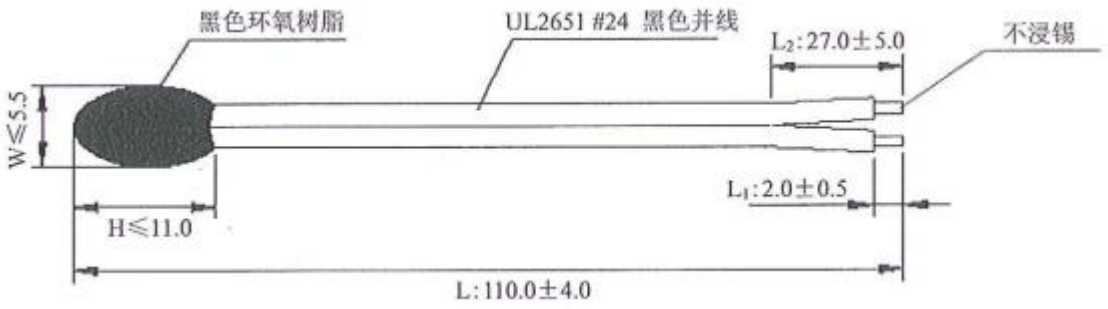
WIRE LENGTH	110 MEANS THE TOTAL LENGTH OF THE PRODUCT IS 110MM;
⑪ 环保产品 ENVIRONMENTAL PROTECTION PRODUCTS	E表示环保;
	E STANDS FOR ENVIRONMENTAL PROTECTION;
⑫ 特殊定义 SPECIAL DEFINITION	ABC指线尾撕线27±5mm，线尾不浸锡;
	ABC FINGER END TEAR LINE 27±5MM, THE END OF THE LINE IS NOT SOAKED IN TIN;
⑬ 线尾剥线长度	20指产品线尾剥线长度为2.0mm。
	THE TAIL STRIP LENGTH OF THE 20-FINGER PRODUCT LINE IS 2.0MM.

2、 产品特性PRODUCTION FEATURES

2.1 技术参数TECHNICAL PARAMETER

型号规格 SPECIFICATION AND MODEL	额定零功率电阻值 RATED ZERO POWER RESISTANCE VALUE	B（K）	耗散系数 DISSIPATION COEFFICIENT (S)	热时间常数 THERMAL TIME CONSTANT (S)	额定功率 RATED POWER (mw)	工作温度范围 (°C)
SNS103B$_2$3435FE1S110EABC20	10K	3435	≥2.5	≤15	150	-40~105

2.2 外形尺寸PRODUCTION DIMENSION



（单位UNIT：MM）

3、 检验规则 INSPECTION REGULATIONS

3.1 出厂检验 DELIVERY INSPECTION

序号 SEQUENCE	检测项目 TEST ITEM	检验方法 INSPECTION METHOD	性能要求 PERFORMANCE REQUIREMENT
(1)	R_{25}	将待测品置于 25℃高精度油槽内稳定后测量 THE PRODUCT TO BE MEASURED IS PLACED IN A 25℃ HIGH PRECISION OIL TANK FOR STABILITY	10KΩ±1%
(2)	$B_{25/50}$	将待测品置于25℃、85℃精度油槽内稳定后测量 THE PRODUCT TO BE TESTED IS PLACED IN A 25℃, 85℃ PRECISION OIL TANK AND THEN MEASURED	3435K±1%
(3)	外观 APPEARANCE	目视检查 VISUAL INSPECTION	产品符合2.2的外形要求，无针孔、氧化、烫伤等 THE PRODUCT MEETS THE APPEARANCE REQUIREMENTS OF 2.2,WITHOUT PINHOLES,OXIDATION,BURNS,ETC
(4)	尺寸 DIMENSION	用游标卡尺、卷尺测量 MEASURE WITH VERNIER CALIPER AND TAPE MEASURE	符合2.2的外形尺寸 CONFORM TO THE DIMENSIONS OF 2.2
(5)	绝缘电阻测试 INSULATION RESISTANCE TEST	绝缘电压INSULATION VOLTAGE：300V_{DC} 时间TIME：1min	无外观损伤 NO APPARENT DAMAGE 绝缘电阻 INSULATION RESISTANCE：≥150 MΩ

3.2 型式检验PATTERN INSPECTION

序号 SEQUENCE	检验项目 ITEMS	检验标准 STANDARD	检验标准 STANDARD	性能要求 PERFORMANCE REQUIREMENTS
(1)	跌落 FALL	IEC68-2-32	跌落高度 DROP HEIGHE：1±0.1m 跌落次数 NUMBER OF DROPS：1 跌落面 FALLING SURFACE：水泥CEMENT	无外观损伤 NO COSMETIC DAMAGE $\lvert \triangle R_{25}/R_{25} \rvert \leq 1\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(2)	湿热负载 MOIST HEAT LOAD	IEC68-2-2/IEC68-2-3/CNS5550	温度 TEMPERATURE：40±2°C 湿度 HUMIDITY：90~95%RH 时间 TIME：500±12h；工作电流 PERATING CURRENT	无外观损伤 NO COSMETIC DAMAGE $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(3)	高温存储 HIGHT TEMPERATURE LOADS	IEC68-2-2/CNS5550	温度 TEMPERATURE：105±2°C 时间 TIME：1000±24h	无外观损伤 NO COSMETIC DAMAGE $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(4)	冷热冲击 COLD AND HEAT SHOCK	IEC68-2-14	温度 TEMPERATURE：-40°C, +105°C 周期 PERIOD：100,30min/cyc	无外观损伤 NO COSMETIC DAMAGE $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(5)	低温存储 LOW TEMPERATURE STORAGE	IEC68-2-1	温度 TEMPERATURE：-40±2°C 时间 TIME：1000±24h	无外观损伤 NO COSMETIC DAMAGE $\lvert \triangle R_{25}/R_{25} \rvert \leq 2\%$ $\lvert \triangle B/B \rvert \leq 2\%$
(6)	耐久性 DURABILITY	UL1434	环境温度 ENVIRONMENT TEMPERATURE：25±2°C 工作电流 WORKING CURRENT 周期 PERIOD：6000	无外观损伤 NO COSMETIC DAMAGE $\lvert \triangle R_{25}/R_{25} \rvert \leq 5\%$ $\lvert \triangle B/B \rvert \leq 2\%$

4、 包装、贮存 PACKAGE &STORAGE

4.1 包装 PACKAGE

序号 SEQUENCE	包装方式 PACKAGING	包装材料、尺寸 PACKAGING MATERIAL &DIMENSION	产品数量 QUANTITY OF PRODUCT
(1)	包装袋 PACKING BAG	热封口袋 HEAT SEAL POCKET	500PCS
(2)	外包装箱 OUTER PACKING BOX	纸箱CARTON, L×W×H=370mm×205mm×215mm	

4.2 贮存 STORAGE

产品密封保存，存放产品的仓库环境温度-10°C~+40°C、相遇湿度不大于70%，仓库内不允许有各、易爆的种有害气体、易爆的产品及有腐蚀腐蚀性的化学物品，并且无强烈的机械震动、冲击和强辐射的作用，包装箱应垫高地面至少20cm，距离墙壁、热源、冷源、窗口或空气入口至少50cm。

- THIS PRODUCT MUST BE KEPT SEALED.
- STORE IN AN ORDINARY ENVIRONMENT (NORMAL ROOM TEMPERATURE, HUMIDITY AND ATMOSPHERIC PRESSURE).
- STORAGE TEMPERATURE: -10℃~+40℃
- RELATIVE HUMIDITY: ≤70%RH.
- KEEP AWAY FROM CORROSIVE GASES, DEOXIDIZING GAS, FLAMMABLE GAS OR DIRECT SUNLIGHT.
- AVOID STRONG MECHANICAL VIBRATION, SHOCK.
- THE PACKING BOX SHOULD BE RAISED AT LEAST 20CM ABOVE THE GROUND AND AT LEAST 50CM AWAY FROM THE WALL, HEAT SOURCE, COLD SOURCE, WINDOWS OR AIR INLET.
- ABNORMAL STORAGE AND OPERATING CONDITIONS MAY CAUSE MALFUNCTION FUNCTION OR FAILURE OF OUR PRODUCTS.

5、 电阻－温度特性表 RESISTANCE-TEMPERATURE CHARACTERISTIC TABLE

R_{25}=10KΩ±1%

$B_{25/85}$=3435K±1%

T(℃)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(℃)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
-40	191.4889	199.2982	207.4053	-1	28.1746	28.7614	29.3576
-39	181.0213	188.2967	195.8451	0	26.9889	27.5390	28.0976
-38	171.1980	177.9784	185.0087	1	25.8593	26.3750	26.8984
-37	161.9752	168.2962	174.8462	2	24.7829	25.2663	25.7566
-36	153.3123	159.2068	165.3113	3	23.7568	24.2099	24.6692
-35	145.1716	150.6700	156.3610	4	22.7786	23.2032	23.6333
-34	137.5183	142.6488	147.9558	5	21.8457	22.2435	22.6463
-33	130.3200	135.1085	140.0590	6	20.9558	21.3284	21.7055
-32	123.5468	128.0174	132.6365	7	20.1067	20.4557	20.8086
-31	117.1708	121.3457	125.6568	8	19.2963	19.6230	19.9533
-30	111.1663	115.0661	119.0908	9	18.5227	18.8285	19.1375
-29	105.5091	109.1529	112.9112	10	17.7839	18.0701	18.3592
-28	100.1771	103.5825	107.0929	11	17.0783	17.3461	17.6163
-27	95.1495	98.3328	101.6124	12	16.4043	16.6547	16.9073
-26	90.4071	93.3835	96.4482	13	15.7601	15.9943	16.2302
-25	85.9318	88.7153	91.5799	14	15.1445	15.3633	15.5837
-24	81.7070	84.3107	86.9887	15	14.5559	14.7602	14.9660
-23	77.7171	80.1531	82.6573	16	13.9930	14.1838	14.3758
-22	73.9476	76.2272	78.5692	17	13.4547	13.6327	13.8118
-21	70.3850	72.5186	74.7094	18	12.9396	13.1057	13.2726
-20	67.0166	69.0139	71.0636	19	12.4468	12.6016	12.7571
-19	63.8674	65.7389	67.6584	20	11.9751	12.1193	12.2640
-18	60.8844	62.6382	64.4361	21	11.5235	11.6577	11.7924
-17	58.0580	59.7017	61.3858	22	11.0911	11.2159	11.3411
-16	55.3789	56.9196	58.4973	23	10.6769	10.7930	10.9092
-15	52.8387	54.2829	55.7611	24	10.2802	10.3879	10.4958
-14	50.4294	51.7834	53.1684	25	9.9000	10.0000	10.1000
-13	48.1435	49.4130	50.7109	26	9.5287	9.6286	9.7285
-12	45.9741	47.1644	48.3807	27	9.1734	9.2731	9.3729
-11	43.9146	45.0307	46.1705	28	8.8334	8.9327	9.0322
-10	41.9587	43.0053	44.0736	29	8.5079	8.6068	8.7059
-9	40.1008	41.0823	42.0835	30	8.1963	8.2946	8.3932
-8	38.3353	39.2557	40.1942	31	7.8979	7.9955	8.0936
-7	36.6573	37.5204	38.4001	32	7.6120	7.7089	7.8063
-6	35.0618	35.8713	36.6957	33	7.3380	7.4342	7.5308
-5	33.5444	34.3035	35.0762	34	7.0755	7.1708	7.2666
-4	32.1009	32.8127	33.5370	35	6.8238	6.9182	7.0131
-3	30.7272	31.3947	32.0735	36	6.5824	6.6759	6.7699
-2	29.4196	30.0455	30.6816	37	6.3510	6.4434	6.5365
T(℃)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)	T(℃)	RMin(KΩ)	RNor(KΩ)	RMax(KΩ)
38	6.1289	6.2203	6.3124	72	2.0421	2.0952	2.1495
39	5.9158	6.0061	6.0972	73	1.9830	2.0351	2.0885
40	5.7114	5.8005	5.8905	74	1.9258	1.9770	2.0294
41	5.5150	5.6031	5.6920	75	1.8706	1.9209	1.9724
42	5.3265	5.4135	5.5013	76	1.8172	1.8666	1.9172

43	5.1455	5.2313	5.3179	77	1.7656	1.8141	1.8638
44	4.9716	5.0562	5.1417	78	1.7157	1.7634	1.8122
45	4.8045	4.8879	4.9723	79	1.6675	1.7143	1.7622
46	4.6439	4.7261	4.8093	80	1.6208	1.6668	1.7139
47	4.4896	4.5706	4.6526	81	1.5757	1.6208	1.6671
48	4.3412	4.4210	4.5018	82	1.5320	1.5764	1.6218
49	4.1985	4.2771	4.3567	83	1.4898	1.5333	1.5780
50	4.0612	4.1386	4.2170	84	1.4489	1.4917	1.5355
51	3.9292	4.0054	4.0826	85	1.4094	1.4513	1.4944
52	3.8021	3.8771	3.9531	86	1.3711	1.4123	1.4546
53	3.6798	3.7536	3.8285	87	1.3340	1.3745	1.4161
54	3.5621	3.6347	3.7084	88	1.2981	1.3379	1.3787
55	3.4488	3.5202	3.5927	89	1.2633	1.3024	1.3425
56	3.3396	3.4099	3.4812	90	1.2297	1.2680	1.3074
57	3.2345	3.3036	3.3738	91	1.1970	1.2347	1.2734
58	3.1332	3.2011	3.2702	92	1.1654	1.2024	1.2404
59	3.0356	3.1024	3.1703	93	1.1348	1.1711	1.2085
60	2.9416	3.0072	3.0740	94	1.1051	1.1408	1.1775
61	2.8509	2.9155	2.9811	95	1.0764	1.1114	1.1474
62	2.7635	2.8269	2.8915	96	1.0485	1.0829	1.1183
63	2.6793	2.7416	2.8051	97	1.0214	1.0552	1.0900
64	2.5980	2.6592	2.7216	98	0.9952	1.0284	1.0626
65	2.5196	2.5797	2.6411	99	0.9698	1.0024	1.0359
66	2.4439	2.5030	2.5633	100	0.9451	0.9771	1.0101
67	2.3709	2.4290	2.4883	101	0.9212	0.9526	0.9850
68	2.3005	2.3575	2.4158	102	0.8979	0.9288	0.9607
69	2.2324	2.2885	2.3457	103	0.8754	0.9058	0.9370
70	2.1668	2.2218	2.2781	104	0.8536	0.8834	0.9141
71	2.1034	2.1575	2.2127	105	0.8323	0.8616	0.8918

5、 风险提示 RISK WARNING:

6.1、由于此款传感器使用的是 24#并线，线芯相对较粗，与方片焊接后，所产生的机械应力存在造成方片或焊接面损伤的几率。
BECAUSE THIS SENSOR USES 24# PARALLEL WIRE, THE CORE IS RELATIVELY THICK, AND THE MECHANICAL STRESS GENERATED AFTER WELDING WITH THE SQUARE IS LIKELY TO CAUSE DAMAGE TO THE SQUARE OR WELDED SURFACE.

6.2、24#并线在发生弯曲时，拉扯力较大，存在造成方片或焊接面损伤的几率。
WHEN THE 24# PARALLEL WIRE IS BENT, THE PULLING FORCE IS LARGE, AND THERE IS A CHANCE OF CAUSING DAMAGE TO THE SQUARE OR WELDED SURFACE.

6.3、不良现象表现为：传感器阻值偏大或开路。
THE ADVERSE PHENOMENON IS: THE SENSOR RESISTANCE VALUE IS TOO LARGE OR OPEN CIRCUIT.

6.4、当客户端使用时，若出现以上不良则不得客诉。
WHEN THE CLIENT IS USED, IF THE ABOVE DEFECTS OCCUR, THE CUSTOMER SHALL NOT COMPLAIN.